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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,110	09/12/2000	Thomas P. Hardjono	2204/A45	6748

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EXAMINER
CHOUDHURY, AZIZUL Q

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _22 May 2006_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4,6-15 and 17-57_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4, 6-15 and 17-57_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _22 May 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _5/30/06_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Detailed Action

This office action is in response to the correspondence received on May 22, 2006.

Drawings

The corrected drawings were received on May 22, 2006. These new drawings are

accepted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-15 and 17-57 are rejected under 35 U.S.C. 102(b) as being

anticipated by Araujo et al (US Pat No: 6,097,720), hereafter referred to as Araujo.

1.   With regards to claims 1, 4, 15, 28, and 42, Araujo teaches, a multicast

communication system comprising a plurality of subscriber locations (column 2, lines

21-56, Araujo), each subscriber location having an access device (equivalent to

intermediate device, column 2, lines 21-40, Araujo) through which a number of

subscriber (equivalent to multicast receiving end station (CPE) (column 2, lines 21-40,

Araujo)) devices access multicast information sent by a multicast distribution device

(equivalent to multicast source end station (RAS) (column 2, lines 21-40, Araujo))

wherein each access device acts as a sole multicast receiver for its respective

subscriber location and distributes multicast information received from the multicast

distribution device to the subscriber devices at its respective subscriber location

(column 2, lines 43-56, Araujo), wherein each said access device acts to join and leave

at least one multicast group on behalf of the subscriber devices at its respective

subscriber location, and wherein each said access device processes a join request from

one of said subscriber devices by determining whether said access device is already

joined to a multicast group indicated by said join request (column 6, lines 40-57,

Araujo), and, in the event that said access device is not already joined to said multicast

group indicated by said join request, sending a join request to said multicast distribution

device (column 2, lines 21-56, Araujo), wherein said joining said multicast group by said

access device on behalf of said first subscriber device includes authenticating, in

response to said second join request, said access device by said multicast distribution

device, and wherein said multicast distribution device does not authenticate said one of

said subscriber devices (ID information is used to transfer messages to and from the

correct CPE (column 2, lines 43-56, Araujo). In addition, Araujo's design allows for PPP

connections between multicast source end (equivalent to multicast distribution device)

and the intermediate device (equivalent to access device) (column 2, lines 21-56,

Araujo). PPP connections feature authentication if desired).

2.   With regards to claims 2, 8, 29 and 43, Araujo teaches, a communication system

wherein the multicast distribution device distributes multicast information for a number

of multicast groups (column 2, lines 43-56, Araujo), and wherein each access device uses a predetermined multicast group management protocol to join the multicast group on behalf of the subscriber devices at its respective subscriber location (column 6, lines 40-44, Araujo).

3.   With regards to claims 3, 30, 31, 44 and 45, Araujo teaches, a communication system wherein the predetermined multicast group management protocol is an Internet Group Management Protocol (IGMP) (column 11, lines 16-18, Araujo).

4.   With regards to claim 6, Araujo teaches, a communication system wherein each access device is coupled to a separate interface of the multicast distribution device (column 6, lines 4-25, Araujo).

5.   With regards to claim 7, Araujo teaches, a communication system wherein the multicast distribution device identifies each access device based upon the interface to which the access device is coupled (column 2, lines 43-56, Araujo).

6.   With regards to claim 9, Araujo teaches, a communication system wherein the multicast distribution device sends multicast information to the access devices based upon multicast group memberships of the access devices (column 2, lines 43-56, Araujo).

7.   With regards to claim 10, Araujo teaches, a communication system, wherein

each access device distributes multicast information received from the multicast

distribution device to its respective subscriber devices (column 2, lines 43-56, Araujo).

8.   With regards to claims 11 and 27, Araujo teaches, a communication system

wherein the multicast distribution device maintains accounting information for each

subnetwork (column 2, lines 43-50 (join messages include ID information) and column

11, lines 42-61, Araujo).

9.   With regards to claim 12, Araujo teaches, a communication system wherein the

accounting information comprises multicast group memberships for each subnetwork

(column 2, lines 21-56 and column 11, lines 56-61, Araujo).

10.   With regards to claim 13, Araujo teaches, a communication system wherein the

accounting information comprises duration for each multicast group membership for

each subnetwork (column 11, lines 56-61, Araujo).

11.   With regards to claim 14, Araujo teaches, a communication system wherein the

accounting information comprises a volume of multicast information for each multicast

group membership for each subnetwork (column 11, lines 42-61, Araujo).

12.   With regards to claim 17, Araujo teaches, an access control method (a system

can be a method) wherein authenticating the access device by the multicast distribution

device comprises: identifying the access device by the multicast distribution device (ID

information is used to transfer messages to and from the correct CPE (column 2, lines

43-56, Araujo). Plus, Araujo's design allows for PPP connections between nodes

(column 2, lines 21-56, Araujo). PPP features authentication).

13.   With regards to claim 18, Araujo teaches, an access control method (a system

can be a method) wherein the access device is coupled to an interface of the multicast

distribution device, and wherein identifying the access device by the multicast

distribution device comprises: identifying the access device based upon the interface

over which the second join request is received by the multicast distribution device (Plus,

Araujo's design allows for PPP connections between nodes (column 2, lines 21-56,

Araujo). PPP features authentication).

14.   With regards to claim 19, Araujo teaches, an access control method (a system

can be a method) authenticating the access device by the multicast distribution device

comprises: authenticating the access device using a predetermined authentication

scheme (Araujo's design allows for PPP connections between nodes (column 2, lines

21-56, Araujo). PPP features authentication).

15.   With regards to claim 20, Araujo teaches, an access control method (a system

can be a method) wherein the predetermined authentication scheme comprises IPsec

AH (Various protocols are applicable to Araujo's design (column 3, lines 14-30, Araujo)).

16.   With regards to claim 21, Araujo teaches, an access control method (a system

can be a method) further comprising:

- Determining by the multicast distribution device that the access device is

    authentic (Araujo's design allows for PPP connections between nodes

    (column 2, lines 21-56, Araujo). PPP features authentication); and

- Establishing a multicast group membership for the access device by the

    multicast distribution device (column 2, lines 43-56, Araujo).

17.   With regards to claim 22, Araujo teaches, an access control method (a system

can be a method) further comprising:

- Determining by the multicast distribution device that the access device is not

    authentic (Araujo's design allows for PPP connections between nodes

    (column 2, lines 21-56, Araujo). PPP features authentication); and

- Denying a multicast group membership for the access device by the multicast

    distribution device (It is inherent that when authentication fails, access is

    denied).

18.   With regards to claim 23, Araujo teaches, an access control method (a system

can be a method) wherein associating the first subscriber device with the multicast

group by the access device comprises:

- Maintaining by the access device a list of subscriber devices associated with

  the multicast group (Araujo's design allows for PPP connections between

  nodes (column 2, lines 21-56, Araujo). PPP features authentication); and

- Adding the first subscriber device to the list of subscriber devices associated

  with the multicast group (column 2, lines 43-56, Araujo).

19.   With regards to claim 24, Araujo teaches, an access control method (a system

can be a method) further comprising: leaving the multicast group by the first subscriber

device; leaving the multicast group by the access device on behalf of the first subscriber

device; and disassociating the first subscriber device from the multicast group by the

access device (It is inherent that since joining means are present that leaving means

are also present (column 6, lines 40-57, Araujo)).

20.   With regards to claim 25, Araujo teaches, an access control method (a system

can be a method) further comprising:

- Joining the multicast group by a second subscriber device, wherein joining

  the multicast group by the second subscriber device comprises: sending a

  third join request by the second subscriber device to the access device using

a third multicast group management protocol (column 6, lines 40-57, Araujo);
and

- Associating the second subscriber device with the multicast group by the
  access device (column 2, lines 21-56, Araujo).

21.   With regards to claim 26, Araujo teaches, an access control method (a system
can be a method) further comprising: leaving the multicast group by one of the first
subscriber device and the second subscriber device; remaining joined to the multicast
group by the access device on behalf of the remaining subscriber device; and
disassociating said one of the first subscriber device and the second subscriber device
from the multicast group by the access device (It is inherent that since joining means
are present that leaving means are also present (column 6, lines 40-57, Araujo)).

22.   With regards to claims 32, 33, 46 and 47, Araujo teaches, an apparatus (a
system can be an apparatus and a program) wherein the membership logic is operably
coupled to associate the first multicast group memberships with the second multicast
group memberships (column 2, lines 43-56 and column 11, lines 56-61, Araujo).

23.   With regards to claims 34 and 48, Araujo teaches, an apparatus (a system can
be an apparatus and a program) wherein the first multicast group management logic is
operably coupled to receive a join request from a subscriber device for joining a
multicast group (column 2, lines 43-56, Araujo).

24.   With regards to claims 35 and 49, Araujo teaches, an apparatus (a system can

be an apparatus and a program) wherein the second multicast group management logic

is operably coupled to join the multicast group on behalf of the first subscriber device

(column 2, lines 21-56, Araujo).

25.   With regards to claims 36 and 50, Araujo teaches, an apparatus (a system can

be an apparatus and a program) wherein the membership logic is operably coupled to

associate the first subscriber device with the multicast group (column 2, lines 43-56,

Araujo).

26.   With regards to claims 37, 38, 51 and 52, Araujo teaches, an apparatus (a

system can be an apparatus and a program) wherein the first multicast group

management logic is operably coupled to determine that a subscriber device has left a

multicast group (It is inherent that since joining means are present that leaving means

are also present (column 6, lines 40-57, Araujo)).

27.   With regards to claims 39 and 53, Araujo teaches, an apparatus (a system can

be an apparatus and a program) wherein the second multicast group management logic

is operably coupled to determine whether there are any remaining subscriber devices

associated with the multicast group based upon the membership information maintained

by the membership logic (column 2, lines 43-56 and column 11, lines 56-61, Araujo).

28.   With regards to claims 40 and 54, Araujo teaches, an apparatus (a system can

be an apparatus and a program) wherein the second multicast group management logic

is operably coupled to remain a member of the multicast group upon determining that

there is at least one remaining subscriber device associated with the multicast group

(column 2, lines 43-56 and column 11, lines 56-61, Araujo).

29.   With regards to claims 41 and 55, Araujo teaches, an apparatus (a system can

be an apparatus and a program) wherein the second multicast group management logic

is operably coupled to leave the multicast group upon determining that there are no

remaining subscriber devices associated with the multicast group (It is inherent that

since joining means are present that leaving means are also present (column 6, lines

40-57, Araujo)).

30.   With regards to claim 56, Araujo teaches, a program embodied in a computer

readable medium (column 8, lines 14-29, Araujo).

31.   With regards to claim 57, Araujo teaches, a program embodied in a data signal

(column 8, lines 14-29, Araujo).

Remarks

The amendment received on May 22, 2006 has been carefully examined but is

not deemed fully persuasive. The following are the examiner's response to the

applicant's remarks. The newly amended independent claims feature the authentication

traits of the now cancelled claim 16. The applicant contends that since the network in

Araujo's disclosure uses PPP and that authentication is optional in PPP, authentication

means are not present as claimed. Applicant further contends that if PPP were

considered to include authentication, then authentication would necessarily have to be

performed on each PPP connection in the Araujo system. This assertion would mean

that authentication is performed between the multicast source device (multicast

distribution device) and the end stations (subscriber devices), instead of having

authentication between the multicast source device (multicast distribution device) and

the intermediate device (access device). The examiner disagrees with these

assertions. Araujo's teachings allow for PPP connections between the multicast source

device (multicast distribution device) and the intermediate device (access device)

(column 2, lines 36-41, Araujo). With PPP, authentication can be applied if desired to

this connection (between the intermediate and the multicast source devices) while

applying no authentication in the other PPP connection within Araujo's design. That

means no authentication need occur between the end stations (subscriber devices) and

the intermediate device (access device). RFC 1661 further explains how authentication

within PPP can be applied or not applied.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Azizul Choudhury whose telephone number is (571)

272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

JASON CARDONE
SUPERVISORY PATENT EXAMINER